

IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) A semiconductor laser device comprising
a semiconductor multi-layer film formed by laminating optical confinement layers
and active layers so as to dispose each of said active layers between said optical confinement
layers;

a high reflection film coated on a first end of the multi-layer film perpendicular to
junction planes of the individual layers in said semiconductor multi-layer film; and

a low reflection film coated on a second end of the multi-layer film opposite to the
first end and comprising essentially Al_2O_3 having a resistivity of $1 \times 10^{12} \Omega \cdot \text{m}$ or more,

wherein the semiconductor laser device has a fault in time (FIT) number of
approximately 1000 or less when calculated using the formula: $\text{FIT} = (\text{fault number} \times$
 $10^9)/(\text{operating time} \times \text{operating number})$.

2. (Previously Presented) The semiconductor laser device according to claim 19,
wherein said low reflection film is formed from a single layer.

3. (Original) The semiconductor laser device according to claim 1, wherein said low
reflection film is formed from a plurality of layers.

4. (Original) The semiconductor laser device according to claim 3, wherein said
plurality of layers are a composite film formed from a film comprised of said Al_2O_3 and a
film which contains Si and has a refractive index higher than that of said Al_2O_3 .

5. (Original) The semiconductor laser device according to claim 4, wherein said film which has a refractive index higher than that of said Al_2O_3 is selected from the group consisting of Si, α (amorphous)-Si and SiN.

6. (Original) The semiconductor laser device according to claim 1, wherein said high reflection film contains a film comprised of at least Al_2O_3 having a resistivity of $1 \times 10^{12} \Omega \cdot \text{m}$ or more.

7. (Original) The semiconductor laser device according to claim 6, wherein said high reflection film is a composite film formed from a film comprised of said Al_2O_3 and a film which contains Si and has a refractive index higher than that of said Al_2O_3 .

8. (Currently Amended) A semiconductor laser device comprising:

a semiconductor multi-layer film formed by laminating optical confinement layers and active layers so as to dispose each of said active layers between said optical confinement layers;

a high reflection film coated on a first end of the multi-layer film perpendicular to junction planes of the individual layers in said semiconductor multi-layer film; and

a low reflection film coated on a second end of the multilayer film opposite to the first end and comprising essentially Al_2O_3 having a stoichiometric ratio composition,

wherein the semiconductor laser device has a fault in time (FIT) number of approximately 1000 or less when calculated using the formula: $\text{FIT} = (\text{fault number} \times 10^9) / (\text{operating time} \times \text{operating number})$.

9. (Original) A semiconductor laser device comprising a semiconductor multi-layer film formed by laminating optical confinement layers and active layers so as to dispose each of said active layers between said optical confinement layers, wherein one of the opposite ends perpendicular to the junction planes of the individual layers in said semiconductor multi-layer film is coated with a low reflection film and the other of said ends is coated with a high reflection film,

wherein said low reflection film contains a film comprised of Al_2O_3 having a stoichiometric ratio composition.

10. (Original) The semiconductor laser device according to claim 9, wherein said low reflection film is formed from a single layer.

11. (Original) The semiconductor laser device according to claim 9, wherein said low reflection film is formed from a plurality of layers.

12. (Original) The semiconductor laser device according to claim 11, wherein said plurality of layers are a composite film formed from a film comprised of said Al_2O_3 and a film which contains Si and has a refractive index higher than that of said Al_2O_3 .

13. (Original) The semiconductor laser device according to claim 12, wherein said film which contains Si is selected from the group consisting of Si, α (amorphous)-Si and SiN.

14. (Original) The semiconductor laser device according to claim 9, wherein said high reflection film contains a film comprised of at least Al_2O_3 having a substantially stoichiometric ratio composition.

15. (Original) The semiconductor laser device according to claim 14, wherein said high reflection film is a composite film formed from a film comprised of said Al_2O_3 and a film which contains Si and has a refractive index higher than that of said Al_2O_3 .

16. (Original) The semiconductor laser device according to claim 15, wherein said film which has a refractive index higher than that of said Al_2O_3 is selected from the group consisting of Si, α (amorphous)-Si and SiN.

17. (Previously Presented) The semiconductor laser device according to any one of claims 1 to 16, wherein said Al_2O_3 film is deposited by an electron cyclotron resonance plasma sputtering process.

18. (Currently Amended) A semiconductor laser device comprising:
a semiconductor multi-layer film comprising at least one confinement layer and at least one active layer;
a high reflection film substantially perpendicular to the semiconductor multi-layer film; and
a low reflection film substantially perpendicular to the semiconductor multi-layer film, wherein the low reflection film comprises essentially Al_2O_3 having a stoichiometric ratio composition,

wherein the semiconductor laser device has a fault in time (FIT) number of approximately 1000 or less when calculated using the formula: $\text{FIT} = (\text{fault number} \times 10^9)/(\text{operating time} \times \text{operating number})$.

19. (Previously Presented) The semiconductor laser device according to Claim 1, wherein said resistivity of said Al_2O_3 film being in an inclusive range of 1×10^{12} through $1 \times 10^{14} \Omega \cdot \text{m}$.

20. (Currently Amended) A semiconductor laser device comprising:

a semiconductor multi-layer film formed by laminating optical confinement layers and active layers so as to dispose each of said active layers between said optical confinement layers;

a high reflection film coated on a first end of the multi-layer film perpendicular to junction planes of the individual layers in the semiconductor multi-layer film; and

a low reflection film coated on a second end of the multi-layer film opposite to the first end and comprising Al_2O_3 having a resistivity of $1 \times 10^{12} \Omega \cdot \text{m}$ or more, wherein the individual layers forming the semiconductor multi-layer film each being made of a semiconductor material simultaneously containing Ga and at least one of In, As, P and Al, and

wherein the semiconductor laser device has a fault in time (FIT) number of approximately 1000 or less when calculated using the formula: $\text{FIT} = (\text{fault number} \times 10^9)/(\text{operating time} \times \text{operating number})$.

21. (New) A semiconductor laser device formed by the process comprising:

forming a semiconductor multi-layer film by laminating optical confinement layers and active layers so as to dispose each of said active layers between said optical confinement layers;

forming a high reflection film coating on a first end of the multilayer film substantially perpendicular to junction planes of the individual layers and said semiconductor multilayer film; and

forming a low reflection film coated on a second end of the multilayer film opposite the first end, wherein at least one of the high reflection film and low reflection film is formed such that the film comprises Al_2O_3 having a resistivity of $1 \times 10^{12} \Omega \cdot \text{m}$ or more.

22. (New) The semiconductor laser device of Claim 21, wherein said forming at least one of the low reflection film and the high reflection film comprises depositing an Al_2O_3 film by an electron cyclotron resonance plasma sputtering process.